**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, D.C. 20554**

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| In the Matter of<br><br>Petition for Rulemaking of the Wireless Ethernet Compatibility Alliance To Permit Unlicensed National Information Infrastructure Devices To Operate in the 5.470-5.725 GHz Band<br><br>To: The Commission | RM-10371 |

Comments by
Denis Kuwahara

Introduction:
I would like to submit these comments to encourage the Federal Communications Commission (FCC) to approve the petition to allocate the 5470-5725 MHz spectrum for use by Radio Local Area Networks (RLANs) and other unlicensed devices.

As a network systems architect I am responsible for evaluation and deployment of RLAN systems. Internal customer demand for wireless data transfers are increasing as the customer become more aware of, and intelligent on, the capabilities of 802.11b RLANs that have been deployed. They are identifying productivity enhancement tools, utilizing this freedom from a network tether, which have payback times measured in months or weeks, or even days. These tools are increasing in numbers and bandwidth requirements. This results in the need for higher rate RLANs (802.11a 5GHz devices.)

Discussion:
Network data transmission is not realtime transfer of data. Data is typically broken into 500-1500 byte packets that are forwarded across the transmission media. Integrity of the data is verified and packets are re-transmitted to correct packet corruption. This packetization of data permits changes in the transmission path characteristics to minimize data delays due to interference. RLAN standards organizations are developing active interference mitigation techniques[1] to minimize data transmission delays. Additional spectrum allocation permits relocation of data transmissions away from interference sources, reducing the need for packet re-transmissions.

[1] IEEE 802.11 TGh 5GHz Harmonization, ETSI/BRAN HIPERLAN2

WP 7C individuals have been conducting spectrum sharing studies in conjunction with JRG 8A-9B on the feasibility of sharing between spaceborne EESS[2] and RLANs at 5GHz. The analysis[3] indicates that the potential for sharing would be enhanced by spreading RLAN energies over a wider spectrum. Thus the allocation of the additional spectrum would reduce the potential interference to the primary user.

Allocation of additional spectrum would permit RLAN users to operate their devices more globally than currently possible. And, would foster greater competition by vendors for the global RLAN market.

Conclusion:

For the reasons I have presented above, I respectfully request the commission grant the petition for Rulemaking and amend Part 15 of the rules to authorize the use of 5470-5725 MHz band by U-NII devices.

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[2] Earth Exploration-Satellite Service

[3] US WP 7C/36 (Rev 1) dated 6 February 2001 "Analysis of Potential Aggregate Interference Between Spaceborne Wideband SARs and Wireless High Speed Radio Local Area Networks (RLANs) Around 5.3 GHz"